

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 150



Technology

Particle separation

Stock Number

10100 Tychem® 10000
TK100 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (collar, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L). For specific test results, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request Document 595.

**Biological Warfare (BW)
Agents Protected Against**

Protects against all biological toxins and pathogens

**Toxic Industrial (TIMs)
Protected Against**

Excellent protection against a wide variety of TIMs

Duration of Protection

Minimum of 8 h

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

15 lb per case, three in a case

Package Size and Volume

16 in L x 11 in W x 13 in H

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

Lime-green

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Operational temperature range of Tychem 10000 material is -25 °F to 225 °F

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

Not specified

Training Available

Available through regional sales representation

Manuals Available

User manual and permeation guide available

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

WORKING DRAFT

Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 151



Technology

Particle separation

Stock Number

10110 Tychem® 10000
TK110 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (collar, elastic wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800- 645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L). For specific test results, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request Document 595.

**Biological Warfare (BW)
Agents Protected Against**

Protects against all biological toxins and pathogens

**Toxic Industrial (TIMs)
Protected Against
Duration of Protection**

Excellent protection against a wide variety of TIMs

Minimum of 8 h

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

15 lb per case, three in a case

Package Size and Volume

16 in L x 11 in W x 13 in H

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

Lime-green

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Operational temperature range of Tychem 10000 material is -25 °F to 225 °F

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

Not specified

Training Available

Available through regional sales representation

Manuals Available

User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 152



Technology

Particle separation

Stock Number

10120 Tychem® 10000
TK120 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L). For specific test results, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request Document 595.

**Biological Warfare (BW)
Agents Protected Against**

Protects against all biological toxins and pathogens

**Toxic Industrial (TIMs)
Protected Against**

Excellent protection against a wide variety of TIMs

Duration of Protection

Minimum of 8 h

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	15 lb per case, three in a case
Package Size and Volume	16 in L x 11 in W x 13 in H
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	Lime-green

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Operational temperature range of Tychem 10000 material is -25 °F to 225 °F
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 153



Technology

Particle separation

Stock Number

10130 Tychem® 10000
TK130 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time
VX: Greater than 12 h at 10 g/m²
GB and L: Greater than 6 h at 10 g/m²
D: Greater than 3 h at 10 g/m²
Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

15 lb

Package Size and Volume

16 in L x 11 in W x 13 in H

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

Lime-green

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Operational temperature range of Tychem 10000 material is -25 °F to 225 °F

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

WORKING DRAFT

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 154



Technology

Particle separation

Stock Number

10140 Tychem® 10000
TK140 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and boots)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
Carl Brown (Technical Product Specialist)
Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L). For specific test results, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request Document 595.

**Biological Warfare (BW)
Agents Protected Against**

Protects against all biological toxins and pathogens

**Toxic Industrial (TIMs)
Protected Against**

Excellent protection against a wide variety of TIMs

Duration of Protection

Minimum of 8 h

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	16 lb per case, three in a case
Package Size and Volume	16 in L x 11 in W x 13 in H
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	Lime-green

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Operational temperature range of Tychem 10000 material is -25 °F to 225 °F
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 155



Technology

Particle separation

Stock Number

10150 Tychem® 10000
TK150 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, elastic wrists, and boots)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L). For specific test results, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request Document 595.

**Biological Warfare (BW)
Agents Protected Against**

Protects against all biological toxins and pathogens

**Toxic Industrial (TIMs)
Protected Against
Duration of Protection**

Excellent protection against a wide variety of TIMs

Minimum of 8 h

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	16 lb per case, three in a case
Package Size and Volume	16 in L x 11 in W x 13 in H
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	Lime-green

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Operational temperature range of Tychem 10000 material is -25 °F to 225 °F
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 156



Technology

Particle separation

Stock Number

10160 Tychem® 10000
TK160 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, elastic wrists, and boots with boot flaps)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L). For specific test results, call the DuPont Protective Apparel Fax-on-Demand Service at 800-558-9329 and request Document 595.

**Biological Warfare (BW)
Agents Protected Against**

Protects against all biological toxins and pathogens

**Toxic Industrial (TIMs)
Protected Against**

Excellent protection against a wide variety of TIMs

Duration of Protection

Minimum of 8 h

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	16 lb per case, three in a case
Package Size and Volume	16 in L x 11 in W x 13 in H
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	Lime-green

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager
Environmental Conditions	Operational temperature range of Tychem 10000 material is -25 °F to 225 °F
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 10000 Level B Coverall

ID# 157



Technology

Particle separation

Stock Number

10165 Tychem® 10000
TK165 Tychem® TK

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (respirator-fit hood, elastic wrists, double storm flap, and boots with boot flaps)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time
VX: Greater than 12 h at 10 g/m²
GBand L: Greater than 6 h at 10 g/m²
D: Greater than 3 h at 10 g/m²
Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

16 lb

Package Size and Volume

16 in L x 11 in W x 13 in H

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

Lime-green

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Tested and inspected after every use

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Operational temperature range of Tychem 10000 material is -25 °F to 225 °F

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not specified

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

Not specified

WORKING DRAFT

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	Not specified
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tyvek® QC Level B Coverall

ID# 158



Technology

Particle separation

Stock Number

70100

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (collar, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Not tested

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

Many inorganic acids, bases, and other liquid chemicals such as pesticides. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

For specific TIMs data, contact Lakeland Customer Service at 800-645-9291.

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters**Sizes Available**

S through 5X

Weight

6 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Sealed seam

Color

Yellow or grey

Logistical Parameters**Ease of Use**

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements**Training Requirements**

None

Training Available

Available through regional sales representation

Manuals Available

User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tyvek QC Level B Coverall

ID# 159



Technology

Particle separation

Stock Number

70110

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (collar, elastic wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Not tested

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

Many inorganic acids, bases, and other liquid chemicals such as pesticides. Questions call Lakeland Customer Service at 800-645-9291.

Duration of Protection

For specific TIMs data, contact Lakeland Customer Service at 800-645-9291

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	6 lb per case, six in a case
Package Size and Volume	Not specified
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Sealed seam
Color	Yellow or grey

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	None
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tyvek® QC Level B Coverall

ID# 160



Technology

Particle separation

Stock Number

70120

Protection Type

Level B, Percutaneous and respiratory

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Not tested

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against
Duration of Protection**

Many inorganic acids, bases, and other liquid chemicals such as pesticides. Questions call Lakeland Customer Service at 800-645-9291.
For specific TIMs data, contact Lakeland Customer Service at 800-645-9291

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	7 lb per case, six in a case
Package Size and Volume	Not specified
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Sealed seam
Color	Yellow or grey

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	None
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tyvek® QC Level B Coverall

ID# 161



Technology

Particle separation

Stock Number

70130

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Not tested

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

Many inorganic acids, bases, and other liquid chemicals such as pesticides. Questions call Lakeland Customer Service at 800-645-9291.

Duration of Protection

For specific TIMs data, contact Lakeland Customer Service at 800-645-9291

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	7 lb per case, six in a case
Package Size and Volume	Not specified
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Sealed seam
Color	Yellow or grey

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	None
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tyvek® QC Level B Coverall

ID# 162



Technology

Particle separation

Stock Number

70140

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and boots)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Not tested

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

Many inorganic acids, bases, and other liquid chemicals such as pesticides. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

For specific TIMs data, contact Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters**Sizes Available**

S through 5X

Weight

8 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Sealed seam

Color

Yellow or grey

Logistical Parameters**Ease of Use**

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements**Training Requirements**

None

Training Available

Available through regional sales representation

WORKING DRAFT

Manuals Available User manual and permeation guide available

Surveillance Testing Requirements Visually inspect prior to use for holes or tears

Support Equipment None

Testing Information Not specified

Applicable Regulations None

Health Hazards None

Communications Interface Capability Option is available

EOD Compatibility Yes

WORKING DRAFT

General

Name

Lakeland Tyvek® QC Level B Coverall

ID# 163



Technology

Particle separation

Stock Number

70150

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, elastic wrists, and boots)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602 Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Not tested

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

Many inorganic acids, bases, and other liquid chemicals such as pesticides. Questions call Lakeland Customer Service at 800-645-9291.

Duration of Protection

For specific TIMs data, contact Lakeland Customer Service at 800-645-9291

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

8 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Sealed seam

Color

Yellow or grey

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

None

Training Available

Available through regional sales representation

Manuals Available

User manual and permeation guide available

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

WORKING DRAFT

Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® SL Level B Coverall

ID# 164



Technology

Particle separation

Stock Number

72110

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (collar, elastic wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time

VX: Greater than 12 h at 10 g/m²

GB and L: Greater than 6 h at 10 g/m²

D: Greater than 3 h at 10 g/m²

Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

6 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

White

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

WORKING DRAFT

Special Requirements

Training Requirements	None
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® SL Level B Coverall

ID# 165



Technology

Particle separation

Stock Number

72120

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800- 645- 9291

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time
VX: Greater than 12 h at 10 g/m²
GB and L: Greater than 6 h at 10 g/m²
D: Greater than 3 h at 10 g/m²
Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

7 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

White

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

Not specified

WORKING DRAFT

Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® SL Level B Coverall

ID# 166



Technology

Particle separation

Stock Number

72130

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time
VX: Greater than 12 h at 10 g/m²
GB and L: Greater than 6 h at 10 g/m²
D: Greater than 3 h at 10 g/m²
Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

7 lb

Package Size and Volume

16 1/8 in L x 10 7/8 in W x 8 in H

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

White

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

WORKING DRAFT

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® SL Level B Coverall

ID# 167



Technology

Particle separation

Stock Number

72140

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and boots)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time

VX: Greater than 12 h at 10 g/m²

GB and L: Greater than 6 h at 10 g/m²

D: Greater than 3 h at 10 g/m²

Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

8 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

White

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

Not specified

WORKING DRAFT

Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® SL Level B Coverall

ID# 168



Technology

Particle separation

Stock Number

72150

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, elastic wrists, and boots)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average breakthrough time
VX: Greater than 12 h at 10 g/m²
GB and L: Greater than 6 h at 10 g/m²
D: Greater than 3 h at 10 g/m²
Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

8 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

White and grey

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

Not specified

WORKING DRAFT

Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® SL Level B Coverall

ID# 169



Technology

Particle separation

Stock Number

72165

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, 30" zipper extended to chin, double storm flap with Velcro, elastic wrists, and boots with boot flaps)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GB and VX); blister agents (HD and L). Questions call Lakeland Customer Service at 800-645-9291.

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of liquid chemicals. Questions call Lakeland Customer Service at 800-645-9291.

WORKING DRAFT

Duration of Protection

Fabric test data: Average Breakthrough Time

VX: Greater than 12 h at 10 g/m²

GB and L: Greater than 6 h at 10 g/m²

D: Greater than 3 h at 10 g/m²

Questions call Lakeland Customer Service at 800-645-9291

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

8 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

White

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

WORKING DRAFT

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 9400 Level B Coverall

ID# 170



Technology

Particle separation

Stock Number

94100 Tychem® 9400
BR100 Tychem® BR

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (collar, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L)

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of TIMs. Contact Lakeland for further information.

Duration of Protection

Breakthrough time at minimum of 8 h, except ammonia at 45 min, dichloromethane at 391 min, and methanol at 150 min

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	12 lb per case, six in a case
Package Size and Volume	Not specified
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	School bus yellow

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 9400 Level B Coverall

ID# 171



Technology

Particle separation

Stock Number

94130 Tychem® 9400
BR130 Tychem® BR

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L)

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of TIMs. Contact Lakeland for further information.

Duration of Protection

Breakthrough time at minimum of 8 h, except ammonia at 45 min, dichloromethane at 391 min, and methanol at 150 min

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	12 lb per case, six in a case
Package Size and Volume	Not specified
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	School bus yellow

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

Support Equipment

None

Testing Information

Not specified

Applicable Regulations

None

Health Hazards

None

Communications Interface Capability

Option is available

EOD Compatibility

Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 9400 Level B Coverall

ID# 172



Technology

Particle separation

Stock Number

94140 Tychem® 9400
BR140 Tychem® BR

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, open wrists, and ankles)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L)

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of TIMs. Contact Lakeland for further information.

Duration of Protection

Breakthrough time at minimum of 8 h, except ammonia at 45 min, dichloromethane at 391 min, and methanol at 150 min

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	12 lb per case, six in a case
Package Size and Volume	Not specified
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	School bus yellow

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not specified
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements	Not specified
Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available
Surveillance Testing Requirements	Visually inspect prior to use for holes or tears

WORKING DRAFT

Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 9400 Level B Coverall

ID# 173



Technology

Particle separation

Stock Number

94160 Tychem® 9400
BR160 Tychem® BR

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (hood, elastic face, elastic wrists, and boots with boot flaps)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L)

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of TIMs. Contact Lakeland for further information.

Duration of Protection

Breakthrough time at minimum of 8 h, except ammonia at 45 min, dichloromethane at 391 min, and ethanol at 150 min

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available

S through 5X

Weight

14 lb per case, six in a case

Package Size and Volume

Not specified

Power Requirements

None

Material Type

Garment is selectively permeable

Construction Type

Seam sewn and the heat-sealed with tape

Color

School bus yellow

Logistical Parameters

Ease of Use

Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC

Consumables

None

Maintenance Requirements

Not specified

Shelf Life

After 5 yr, recommended to use only for training

Transportability

No support equipment required for transportation

Operational Limitations

Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.

Environmental Conditions

Designed to be worn in common outdoor conditions

Unit Cost

Not applicable—cost to be determined by distributors

Maintenance Cost

Not applicable

Warranty

90 d

Don/Doff Information

Not specified

Use/Reuse

Limited use

Launderability

Suits are not launderable

Accessories

None

Special Requirements

Training Requirements

Not specified

Training Available

Available through regional sales representation

Manuals Available

User manual and permeation guide available

Surveillance Testing Requirements

Visually inspect prior to use for holes or tears

WORKING DRAFT

Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

Lakeland Tychem® 9400 Level B Coverall

ID# 174



Technology

Particle separation

Stock Number

94165 Tychem® 9400
BR165 Tychem® BR

Protection Type

Level B, Percutaneous

Equipment Category

Level B, coverall (respirator-fit hood, elastic wrists, double storm flap, and boots with boot flaps)

Availability

4 wk to 5 wk ARO

Current User(s)

Government organizations, municipal HAZMAT teams, fire departments, international HAZMAT/military organizations, and industry

Manufacturer

Lakeland Industries, Inc.
202 Pride Lane, SW
Decatur, AL 35602
Internet: www.lakeland.com
POC: Carl Brown (Technical Product Specialist)
POC: Steve McCully (Product Manager)
800-645-9291 (Tel)
256-350-3011 (Fax)

Manufacturer Type

Domestic

Developer

Lakeland Industries

Source

www.lakeland.com

Certification

Not applicable

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve agents (GA, GB, GD, and VX); blister agents (HD and L)

**Biological Warfare (BW)
Agents Protected Against**

Not specified

**Toxic Industrial (TIMs)
Protected Against**

A broad range of TIMs. Contact Lakeland for further information.

Duration of Protection

Breakthrough time at minimum of 8 h, except ammonia at 45 min, dichloromethane at 391 min, and methanol at 150 min

WORKING DRAFT

Recommended Use(s)

Tactical operations, HAZMAT teams, chemical/biological testing, training, and warfare environments

Physical Parameters

Sizes Available	S through 5X
Weight	14 lb per case, six in a case
Package Size and Volume	16 in L x 11 in W x 13 in H
Power Requirements	None
Material Type	Garment is selectively permeable
Construction Type	Seam sewn and the heat-sealed with tape
Color	School bus yellow

Logistical Parameters

Ease of Use	Garment poses no major mobility or flexibility problems for wearer compared to other Level B CPC
Consumables	None
Maintenance Requirements	Not specified
Shelf Life	After 5 yr, recommended to use only for training
Transportability	No support equipment required for transportation
Operational Limitations	Off the shelf cooling systems are available. Operational limitations to be decided by safety manager.
Environmental Conditions	Designed to be worn in common outdoor conditions
Unit Cost	Not applicable—cost to be determined by distributors
Maintenance Cost	Not applicable
Warranty	90 d
Don/Doff Information	Not specified
Use/Reuse	Limited use
Launderability	Suits are not launderable
Accessories	None

Special Requirements

Training Requirements

Training Available	Available through regional sales representation
Manuals Available	User manual and permeation guide available

WORKING DRAFT

Surveillance Testing Requirements	Visually inspect prior to use for holes or tears
Support Equipment	None
Testing Information	Not specified
Applicable Regulations	None
Health Hazards	None
Communications Interface Capability	Option is available
EOD Compatibility	Yes

WORKING DRAFT

General

Name

ID# 175

Chemical Protective Overgarments (CPO)

LANX Fabric Systems



Technology

LANX is a durable composite fabric containing polymerically encapsulated carbon for the absorption of chemical warfare agents. The overgarment also features a shell fabric with flame resistant or nonflame resistant characteristics.

Stock Number

Not applicable

Protection Type

Percutaneous. The CPO provides liquid, vapor, and aerosol protection against CB agents as well as flame resistance when required.

Equipment Category

CPO consists of a coat and trousers with suspenders as well as accessories such as all fabric glove liners, integrated gloves, and boot liners. Shell fabric is available in flame resistant (FR) and nonflame resistant (non-FR).

Availability

Lead-time depends on order volume. All CPOs custom made to order.

Current User(s)

Center for Domestic Preparedness, Ft. McClellan, AL where students are trained in live chemical warfare agent environments. The FBI HAZMAT Response Unit.

Manufacturer

LANX Fabric Systems
220 GBC Drive
Newark, DE 19702
POC: Randall D. Lofland
302-451-3060 (Tel)
302-451-0208 (Fax)
e-mail: randall.lofland@xymid.com

Manufacturer Type

Domestic

Developer

DuPont developed the LANX technology. LANX Fabric Systems has exclusive rights to manufacture and market the product.

Source

LANX Fabric Systems

Certification

All CPOs meet the chemical agent protective requirements of Military Specification MIL-U-44435

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Distilled mustard (HD), soman (GD), thickened soman (TGD), Lewisite (L), VX, and other lower order agents such as sarin

WORKING DRAFT

Biological Warfare (BW) Agents Protected Against

The CPU inherently protects against BW agents as the particulate size of a BW agent is larger than that of a CW agent making it easier to absorb than CW agents

Toxic Industrial (TIMs) Protected Against

Not specified

Duration of Protection

The CPO is recommended for personnel responding to a WMD incident who require protective apparel that permit the end user to work for extended periods of time in a chemical-biological environment. The CPO is recommended for search and rescue, emergency medical services, WMD Incident Command Support Personnel, HAZMAT response, and law enforcement (depending on application and task assignment). The CPO can be used throughout the identification, mitigation and clean up of a WMD event by a variety of first responders when Level A suits are not required.

Recommended Use(s)

Chemical agent vapors, aerosols, droplets, and all known biological agents.

Physical Parameters

Sizes Available

Shirt and drawers: S/extra short, S/short, M/short, M/regular, M/long, L/regular, L/long (sizing available upon request)
All fabric glove liners: S, M, L, and custom made XL
Integrated gloves: S, M, L, and XL
Boot liners: S, M, L, and XL

Weight

Weighs less than 5 lb per suit

Package Size and Volume

The CPO is vacuum packed and occupies approximately 1 ft³ of space

Power Requirements

None

Material Type

Proprietary

Construction Type

Proprietary

Color

Gray

Logistical Parameters

Ease of Use

Very easy to use. Air permeable technology significantly reduces heat stress allowing the user to work exponentially longer than nonpermeable technologies.

Consumables

Not specified

Maintenance Requirements

Store in dry place

Shelf Life

The ultimate shelf life of the CPO has yet to be determined. The technology is 10 yr old and shows no signs of degradation during annual testing. The U.S. Military currently assesses the shelf life to be 12 yr.

Transportability

May be transported easily whether in a backpack, garment bag, tote bag or even hand carried

Operational Limitations

The CPO provides excellent liquid, vapor, and aerosol protection

WORKING DRAFT

Environmental Conditions

The CPO works well in most climates. Due care should be taken to keep the CPO in a bag when not in use. The CPO's air permeable nature allows for the transportation of sweat away from the body, significantly reducing heat stress.

Unit Cost

Call for a quotation at 302-451-3060
POC: Randall D. Lofland

Maintenance Cost

None if stored properly

Warranty

The CPO is manufactured to Military Pattern PD 97-04 and meets the chemical protective requirements of Military Specification MIL-U-44435

Don/Doff Information

The CPO is easy to don and doff. One man may don and doff his own CPO under normal circumstances. Some agencies require a two man doffing procedure following contamination. Check your agency protocol.

Use/Reuse

The CPO may be reused after wearing and laundering. After contamination with CW agent, current military doctrine dictates disposing of the garment properly.

Launderability

Yes—The CPO is launderable

Accessories

The CPO has accessories such as all fabric glove liners, integrated gloves, and boot liners

Special Requirements

Training Requirements

Minimal training required. Contaminated CPO doffing procedures may vary. Check local protocols.

Training Available

Introductory training is available upon request. Advanced training is based upon agency protocol, and should be developed at the local level.

Manuals Available

Care, use, and storage information is available if needed

Surveillance Testing Requirements

The manufacturer performs CCL4 testing annually prior to distribution to end users. The end user should visually inspect the CPO at regularly scheduled intervals.

Support Equipment

Not applicable

Testing Information

The most recent testing of the LANX CPO was performed using AVLAG Test Operating Procedure (TOP) 8-2-501

Applicable Regulations

The CPO is governed by the International Traffic and Arms Regulations (ITAR)

Health Hazards

MSDSs are on file, and no indication of health hazards present

Communications Interface Capability

Not applicable

EOD Compatibility

Wearing the CPO beneath an EOD Suit is the most favorable configuration to assure chemical/biological protection in the event of an explosion

WORKING DRAFT

General

Name

The U.S. Air Force Saratoga CWU-66/P Chemical Protective Coverall

ID# 176



Technology

Permeable Saratoga carbon sphere technology

Stock Number

CWU-66/P; (MIL C-87264)

Protection Type

Percutaneous

Equipment Category

Coverall, Chemical Protective Flight Coverall (MIL C-87264)

Availability

Fielded 1990, currently in production

Current User(s)

U.S. Air Force, the U.S. Air Force selected the CWU-66/P Chemical Protective Coverall in 1990 as their operational flight suit to provide aircrew chemical agent protection. It is flame resistant.

Manufacturer

Tex-Shield, Inc.
5206 Morrowick Rd
Charlotte, NC 28226
POC: Nona Fahl
704-341-3681 (Tel)
704-341-3468 (Fax)

Manufacturer Type

Domestic and Foreign

Developer

Blucher GmbH, Erkrath, Germany/USAF

Source

Tex-Shield, Inc.

Certification

U.S. and NATO military chemical protection specifications. (MIL C-87264).

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

All classes of chemical warfare agents when used as directed with chemical warfare protective mask, gloves, and overboots or socks

**Biological Warfare (BW)
Agents Protected Against**

Protects against biological warfare agents when used as directed with appropriate mask, gloves, and overboots or socks

**Toxic Industrial (TIMs)
Protected Against**

Not tested

Duration of Protection

Qualified by DoD for 24 h vapor protection, 6 h liquid protection, 10 launderings, and 30 d wear

WORKING DRAFT

Recommended Use(s) Operational flight suit

Physical Parameters

Sizes Available	32S to 52L
Weight	< 5 lb depending on size
Package Size and Volume	17 in x 22 in
Power Requirements	None
Material Type	Monopack, one layer fabric of Saratoga activated carbon spheres between PBI/Nomex fabrics
Construction Type	Coverall, one piece, unlined with front zipper, Velcro closures at leg and sleeves, breast pockets, sleeve pocket, and lower leg pockets
Color	Sage green

Logistical Parameters

Ease of Use	98 % user acceptance
Consumables	Mpme
Maintenance Requirements	General suit inspection. Standard laundering. Record wear use and launderings.
Shelf Life	10 yr
Transportability	Vacuum sealed, compact package
Operational Limitations	Flame resistant
Environmental Conditions	No environmental usage limitations. Not affected by rain, fog, snow, salt, and water.
Unit Cost	Not specified
Maintenance Cost	None
Warranty	Free of material and workmanship defects for 1 yr
Don/Doff Information	Assistance is recommended in doffing contaminated coverall
Use/Reuse	Reusable and launderable
Launderability	Suit is launderable 10 times for hygienic purposes. Standard home laundering.
Accessories	Suit may be purchased as package with Saratoga gloves, and socks

Special Requirements

Training Requirements	No special training required
Training Available	No special training required
Manuals Available	Instruction manual

WORKING DRAFT

Surveillance Testing Requirements

No testing required. Inspection for tears and damage required.

Support Equipment

Chemical warfare mask, gloves, and socks or overboots

Testing Information

Only approved CWU-66/P. Test data available on request.

Applicable Regulations

Not specified

Health Hazards

None

Communications Interface Capability

Not specified

EOD Compatibility

Compatible with EOD equipment in CB environment

WORKING DRAFT

General

Name

CB Incident Emergency Escape Kit

ID# 177



Technology

Percutaneous (Tychem[®] 9400 (durable, puncture and tear-resistant limited-use fabric). Respiratory (full-face air-purifying respirator).

Stock Number

Not specified

Protection Type

Percutaneous and respiratory

Equipment Category

The CB Incident Emergency Escape Kit is designed for the safe exit of areas where hazardous chemical and biological warfare agents have been disseminated. The kit includes a full-face air-purifying respirator with a chemical-biological/riot control agent.

Availability

Commercially available

Current User(s)

Not specified

Manufacturer

EAI Corporation
1308 Continental Drive, Suite J
Abingdon, MD 21009
888-REC-3838 (Tel)
410-671-0058 (Fax)

Manufacturer Type

Domestic

Developer

EAI Corporation

Source

www.r-e-c.com

Certification

Not specified

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Nerve: GA, GB, GD, and VX; blister: HD and L

**Biological Warfare (BW)
Agents Protected Against**

Not specified, but literature states it is designed for safe exit where BW agents have been disseminated

**Toxic Industrial (TIMs)
Protected Against**

Not specified

Duration of Protection

CW- 12 h minimum in each of the chemical groups under protocols DN3, DN4, DN5, and DN6 (except 2 h for Lewisite under protocol DN4)

WORKING DRAFT

Recommended Use(s)

Law enforcement, security, medical personnel (e.g., EMS, paramedics, doctors, and nurses), other personnel predeployed at highly visible events

Physical Parameters

Sizes Available

Not specified

Weight

Not specified

Package Size and Volume

Not specified

Power Requirements

Not specified

Material Type

Coverall and boots made of Tychem[®] 9400 (durable, limited-use fabric with puncture, and tear resistance)

Construction Type

Not specified

Color

Yellow coverall and boot covers; black gloves

Logistical Parameters

Ease of Use

Highly mobile, flexible

Consumables

Not applicable for coverall

Maintenance Requirements

Check for cuts and damage after use

Shelf Life

Not specified

Transportability

Transportable (ensemble is packaged in a nylon duffel bag) and compatible with life support equipment

Operational Limitations

Not specified

Environmental Conditions

Designed to be worn in common outdoor weather conditions, and climates

Unit Cost

Not specified

Maintenance Cost

None

Warranty

Not specified

Don/Doff Information

Not specified

Use/Reuse

Designed for limited use

Launderability

Designed for limited use

Accessories

Boot covers, butyl outer gloves, vinyl inner glove inserts, full-face air-purifying respirator with a chemical-biological/riot control agent canister

Special Requirements

Training Requirements

Not specified

Training Available

Not specified

Manuals Available

Not specified

Surveillance Testing Requirements

Inspection for cuts, damage, and chemical contamination

WORKING DRAFT

Support Equipment

Full-face air-purifying respirator with a chemical-biological/riot control agent canister

Testing Information

Protocols DN3, DN4, DN5, and DN6 for CW agents

Applicable Regulations

Not specified

Health Hazards

Not applicable

**Communications Interface
Capability**

Not specified

EOD Compatibility

Not specified

WORKING DRAFT

General

Name

SEA Tyvek® “F” Suit Level B

ID# 178



Technology

Percutaneous—barrier fabric

Tyvek® “F” is manufactured by laminating the basic Tyvek® flash-spunbonded polyethylene material to a barrier film which is coated with a polymer. The top polymer layer allows seams to be made with a heat-sealing tape which includes the same barrier film and polymer as Tyvek® “F.” Known chemical warfare agents will not permeate these seams. The SEA Tyvek® “F” positive pressure suit is especially made for the SE400, breath responsive, computerized positive pressure PAPR, with optional cooling system.

Stock Number

Not specified

Protection Type

Level B, Percutaneous

Equipment Category

Level B, positive pressure ventilated chemical protective clothing

Availability

Commercial

Current User(s)

Frequently used by emergency preparedness teams in Europe

Manufacturer

SEA
11 Business Park Drive
Branford CT 06405
Contact: Bengt Kjellberg, President
203-483-9483 (Tel)
203-483-6633 (Fax)
888-732-3500 (Toll Free U.S. and Canada)
Email: bengtk@sea.com.au
<http://www.sea.com.au>

Manufacturer Type

Foreign

Developer

SEA Group

Source

Brochure and Internet <http://www.sea.com.au>

Certification

Tyvek “F” models typically surpass the minimum performance requirements specified in the European standards. For detailed information call 888-832-3500.

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Tested by U.S. Army SBCCOM Edgewood Biological and Chemical Center, Aberdeen Proving Ground, MD. Test parameters available on request (888-732-3500).

WORKING DRAFT

Biological Warfare (BW) Agents Protected Against

Specification available on request. Call 888-732-3500 and ask for the document regarding Tyvek Barrier Man Chemical Protective Clothing.

Toxic Industrial (TIMs) Protected Against

Specification available on request. Call 888-732-3500 and ask for the document regarding Tyvek Barrier Man Chemical Protective Clothing.

Duration of Protection

In an environment where guaranteed high protection factor, in combination with long duration time and low weight is needed, and in combination with positive pressure suit ventilation

Recommended Use(s)

In an environment where guaranteed high protection factor, in combination with long duration time and low weight is needed, and in combination with positive pressure suit ventilation

Physical Parameters

Sizes Available

Size options: L, XL, and XXL

Weight

Complete suit 1.5 lb. Suit ventilation system additional 0.5 lb.

Package Size and Volume

9 in x 12 in x 8 in

Power Requirements

(3) D-alkaline batteries if personal ice cooling system is integrated with the suit (for 4 h duration)

Material Type

Tyvek "F" (high density polyethylene)

Construction Type

Heat-sealed seams

Color

Green

Logistical Parameters

Ease of Use

Disposable suit specially designed for SE 400 for ease of donning and doffing with suit ventilation and positive pressure in suit to gain high protection

Consumables

Disposable suit

Maintenance Requirements

Store in a dry location and avoid direct contact with sunlight for prolonged periods

Shelf Life

The projected shelf life of Tyvek "F" fabrics based on accelerated aging tests according to ASTM 573-88 conducted at 212 °F and 100 psi is 5 yr

Transportability

The SEA suit can be transported without the need for any special equipment

Operational Limitations

The SEA suit is very lightweight with positive pressure and suit cooling capability option; therefore, there is very little additional workload so the user can perform normal work for longer periods without suffering discomfort, even in high temperature environments.

Environmental Conditions

Specification available on request. Call 1-888-732-3500 and ask for document regarding Tyvek Barrier Man Chemical Protective Clothing.

Unit Cost

\$175

Maintenance Cost

Disposable

WORKING DRAFT

Warranty

The supplier warrants that all products manufactured by it shall be free of defects in material and workmanship for a period of 1 yr from the date of delivery

Don/Doff Information

There is no assistance required for the donning or doff of the SEA suit. An experienced operator can comfortably don or doff within 2 min.

Use/Reuse

Disposable

Laundryability

Disposable

Accessories

SE 400 positive pressure PAPR system with communication. Positive pressure ventilation system and integrated personal ice cooling system.

Special Requirements**Training Requirements**

No specific training required other than to read the manual. Fifteen min will give the user the basic operational understanding. Further training is required for the user to understand the maintenance and care of the SE400.

Training Available

SEA can provide full training for use, maintenance, and care of the SEA suit

Manuals Available

Training documentation can be provided

Surveillance Testing Requirements

Not applicable

Support Equipment

Not applicable

Testing Information

Specification available on request. Call 1-888-732-3500 and ask for document regarding Tyvek Barrier Man Chemical Protective Clothing.

Applicable Regulations

European standards

Health Hazards

The Tyvek "F" garments could be incinerated after use without harming the environment, or they may be buried in a responsible way

Communications Interface Capability

SE-TALK—a miniature loudspeaker that connects to the respirator unit as well as the positive pressure suit cooling system

EOD Compatibility

WORKING DRAFT

General

Name

NewPac CEMI COVER DRESS C/91

ID# 179



Technology

Disposable, 10 plies, impermeable NBC and TIM skin protective two piece plastic (PE) garment with double barrier of EVAL (EVOH)

Stock Number

NewPac/2007 (Alt. NewPac/2015)

Protection Type

Percutaneous

Equipment Category

Level B, two piece plastic garment with double barrier; shall be used with APR or PAPR

Availability

2 wk

Current User(s)

First responders and rescue squads in Europe and SE Asia

Manufacturer

New Pac Safety AB
P.O. Box 174
SE-566 23 Habo
Sweden
+46-36-411-39 (Tel)
+46-36-410-31 (Fax)
E-mail: info@newpac.se

Manufacturer Type

Foreign/Sweden, Europe

Developer

New Pac Safety AB

Source

Createc Consulting LLC, Branford, CT.
www.army-technology.com New Pac Safety
POC: Mr. Hans Almqvist
203-481-7114 (Tel)

Certification

CE-certified by the notified body 0402, SA, Borås, Sweden. Certificate No: 19 83 01. Meets European EU Directives 89/686/EEC, Article 10.

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Most types. Documentation by tests with HD.

**Biological Warfare (BW)
Agents Protected Against**

Most types

**Toxic Industrial (TIMs)
Protected Against**

Most types

WORKING DRAFT

Duration of Protection

NBC-proof for more than 24 h. TIM-proof for more than 4 h.

Recommended Use(s)

First responders for environments with no risk of fire

Physical Parameters**Sizes Available**

One size, universal fit

Weight

2.2 lb (1 kg)

Package Size and Volume

11 x 11 x 3 in; 0.18 ft³

Power Requirements

Not applicable

Material Type

Multiply polyethylene (PE) film with two barrier layers of ethylene vinyl alcohol (EVAL/EVOH). The material is not fire retardant.

Construction Type

Two-piece suit with integrated hood and with special foot covers. The seams are thermo-sealed. Gloves are separate.

Color

Transparent

Logistical Parameters**Ease of Use**

Shall be used with APR or PAPR with full-face mask. Mobility and flexibility are only marginally influenced, but cooling vest is recommended for warm environments to reduce risk of heat stress.

Consumables

Not applicable

Maintenance Requirements

Not applicable; the suit is disposable

Shelf Life

20 yr in storage with temperature maximum 122 °F

Transportability

Easily transported

Operational Limitations

Must not be exposed to intensive heat or open flame

Environmental Conditions

Unlimited use in -13 °F to +158 °F (+70 °C). Can withstand short (4 min) exposure to -40 °F to +572 °F.

Unit Cost

\$119

Maintenance Cost

Not applicable

Warranty

1 yr. Extended warranty is offered if storage conditions can be guaranteed.

Don/Doff Information

Manual is provided

Use/Reuse

If contaminated, the suit shall be destroyed by fire under controlled conditions

Launderability

Not applicable

Accessories

Shall be used with APR or PAPR with full-face mask. Cooling vest is recommended for warm environments.

Special Requirements**Training Requirements**

1 h

WORKING DRAFT

Training Available	Manual. Training video pending.
Manuals Available	Technical specification New Pac TS C/9107-2 and user manual
Surveillance Testing Requirements	No need for surveillance testing
Support Equipment	APR or PAPR with full-face mask. Cooling vest recommended for use in warm environments.
Testing Information	New Pac TS C/9107-2
Applicable Regulations	EU-Directives 89/686/EEC and Article 10
Health Hazards	No health hazard
Communications Interface Capability	Not applicable
EOD Compatibility	Not specified

WORKING DRAFT

General

Name

NewPac First Responder PPE Kit

ID# 180



Technology

Complete First Responder PPE Kit including protective suit, APR with full-face mask, canister and manual packaged in storage and carrying bag for use when responding to environments containing NBC agents and/or TIMs.

Stock Number

NewPac/2030

Protection Type

Percutaneous and respiratory

Equipment Category

Level B, complete First Responder PPE Kit including protective suit, APR with full-face mask, canister and manual packaged in storage and carrying bag for use when responding to environments containing NBC agents and/or TIMs; use APR with full face mask.

Availability

In May 2001: 3 mo. In fall of 2001: 2 wk.

Current User(s)

First responders and rescue squads in Europe and SE Asia

Manufacturer

New Pac Safety AB
P.O. Box 174
SE-566 23 Habo
Sweden
+46-36-411-39 (Tel)
+46-36-410-31 (Fax)
E-mail: info@newpac.se

Manufacturer Type

Foreign/Sweden, UK, and Hungary

Developer

New Pac Safety AB

Source

Createc Consulting LLC, Branford, CT.
www.army-technology.com New Pac Safety
POC: Mr. Hans Almqvist
203-481-7114 (Tel)

Certification

The suit meets EU standard. NIOSH certification for APR pending. The kit will be tested to pending NFPA 1994 standard.

Operational Parameters

**Chemical Warfare (CW)
Agents Protected Against**

Most types

WORKING DRAFT

Biological Warfare (BW) Agents Protected Against	Most types
Toxic Industrial (TIMs) Protected Against	Most types
Duration of Protection	Not specified
Recommended Use(s)	First responders for environments not IDLH and with no risk of fire

Physical Parameters

Sizes Available	One size, universal fit. Full-face mask available in two sizes.
Weight	6.6 lb (3 kg)
Package Size and Volume	11 x 11 x 9 in; 0.5 ft ³
Power Requirements	Not applicable
Material Type	Multiply polyethylene (PE) film with two barrier layers of ethylene vinyl alcohol (EVAL/EVOH). The material is not fire retardant.
Construction Type	Two-piece suit with integrated hood and with special foot covers. The seams are thermo-sealed. Gloves are separate.
Color	The suit is transparent

Logistical Parameters

Ease of Use	Mobility and flexibility are only marginally influenced, but cooling vest is recommended for warm environments to reduce risk of heat stress
Consumables	The canister has to be replaced periodically. Time not specified.
Maintenance Requirements	The full-face mask has to be cleaned after each use. Canister and suit are disposable.
Shelf Life	10 yr in storage with temperature maximum 122 °F. Canister to be replaced periodically.
Transportability	Easily transported
Operational Limitations	Must not be exposed to intensive heat or open flame
Environmental Conditions	Unlimited use in -13 °F to +158 °F (+70 °C)
Unit Cost	\$300
Maintenance Cost	The full face mask has to be cleaned after each use
Warranty	1 yr. Extended warranty is offered if storage conditions can be guaranteed.
Don/Doff Information	Manual is provided
Use/Reuse	If contaminated, the suit shall be destroyed by fire under controlled conditions. The canister shall be replaced after each use. The full-face mask shall be cleaned.

WORKING DRAFT

Laundryability

Not applicable

Accessories

Cooling vest is recommended for warm environments

Special Requirements

Training Requirements

1 h for the use of the kit. Incident commanders need more time depending on their background.

Training Available

Manual. Training video pending.

Manuals Available

Technical specification New Pac TS C/9107–2 and user manual

Surveillance Testing Requirements

No need for surveillance testing

Support Equipment

Cooling vest recommended for use in warm environments.
Communication equipment can be added.

Testing Information

New Pac TS C/9107–2 and tests needed for pending NIOSH certification and NFPA 1994 (pending) approval

Applicable Regulations

Suit: EU– Directives 89/686/EEC, Article 10 and pending NFPA 1994 APR: 42 CFR 84. Pending NFPA standard 1994.

Health Hazards

No health hazard

Communications Interface Capability

The full-face mask can be equipped with communication device

EOD Compatibility

Not specified